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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,760	08/08/2001	Allisa Gam	FA0992 US NA	4339

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EXAMINER

SHOSHO, CALLIE E

ART UNIT PAPER NUMBER

1714

DATE MAILED: 08/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/924,760

Applicant(s)

GAM, ALLISA

Examiner

Callie E. Shosho

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

THE REPLY FILED 22 July 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
- ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☒ A Notice of Appeal was filed on 22 July 2004. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attachment.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_

Claim(s) objected to: \_\_\_\_\_

Claim(s) rejected: 1-10.Claim(s) withdrawn from consideration: 11-12.

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
10. ☐ Other: \_\_\_\_\_

Callie E. Shosho  
Primary Examiner  
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**Attachment to Advisory Action**

1. Applicant's response filed 7/22/04 has been fully considered but it is not persuasive.

Specifically, applicant argues that in Honel et al. (U.S. 5,055,542), the cyclic carbonate is attached to epoxy backbone first and ring opening with an amine is accomplished on this preformed backbone which is in direct contrast to the present claims which require that the cyclic carbonate ring opening reaction occurs before attachment to epoxy. As evidence to support this position, applicant points to col.6, lines 1-67 of Honel et al.

While col.6, lines 54-55 of Honel et al. disclose that it is "preferable" that the cyclic carbonate is prepared from polydiglycidyl ethers of polyphenols, attention is also drawn to col.3, lines 39-44 of Honel et al. which discloses that compound (B) contains at least one cyclic carbonate and "optionally" 1,2-epoxide groups. Thus, it appears that while it is preferable that the cyclic carbonate is attached to epoxy backbone first, Honel et al do not require this reaction. It is noted, "nonpreferred disclosures can be used. A nonpreferred portion of a reference disclosure is just as significant as the preferred portion in assessing the patentability of claims", *In re Nehrenberg*, 280 F.2d 161, 126 USPQ 383 (CCPA 1960).

Further, it is noted that even if the cyclic carbonate is attached to epoxy backbone and then reacted with amine, given that Honel et al. disclose that this product is then reacted with organic acid followed by reaction with epoxy resin to form quaternized product, it is the examiner's position that Honel et al. still meets the requirements of the

present claims. As evidence to support this position, applicant's attention is drawn to col.5, lines 50-55 of Honel et al. which disclose that any compound (B) can be used provided that it contains "no functional groups which interfere with the reaction with component (A)" wherein component (A) is the polyamine. Therefore, even if the cyclic carbonate is attached to epoxy backbone first, the polyamine still reacts with the cyclic carbonate as presently claimed. The epoxy does not interfere with the reaction between the polyamine and the cyclic carbonate. There is nothing in the present claims that excludes the cyclic carbonate from being attached to epoxy backbone before reaction with amine. The present claims only require that the alkylaminoalkyl amine react with the alkylene carbonate, which is disclosed by Honel et al.

Applicant also argues that Honel et al. disclose using polyfunctional cyclic carbonate rather than monofunctional cyclic carbonate, i.e. alkylene carbonate, as required in the present claims.

However, it is noted that col.5, lines 50-53 of Honel et al. disclose that any materials can be used as compound (B) provided that they contain on average at least one, preferably two or three, cyclic carbonate. Thus, while it is agreed that the use of polyfunctional cyclic carbonate is preferred by Honel et al., it is significant to note that Honel et al. also disclose the use of monofunctional cyclic carbonate, i.e. "at least one". As stated above, "nonpreferred disclosures can be used. A nonpreferred portion of a reference disclosure is just as significant as the preferred portion in assessing the patentability of claims", *In re Nehrenberg*, 280 F.2d 161, 126 USPQ 383 (CCPA 1960).

Applicant also argues that the starting materials of Honel et al. are significantly different and thus, significantly different structures are produced than that presently claimed. However, it is noted that the present claims are only drawn to pigment dispersant not a specific structure. The present claims only require reaction product of alkyl aminoalkyl amine and alkylene carbonate followed by reaction with organic acid followed by reaction with epoxy resin. Given that Honel et al. disclose such reaction as described above, it is the examiner's position that Honel et al. remains a relevant reference against the present claims.

Applicant also argue that while it is agreed that the use of monoisocyanate is optional, given that Honel et al. favor large molecules, their use is desired. However, while the use of monoisocyanate may be desired, the fact remains that the use of such monoisocyanates is not required by Honel et al. and thus, Honel et al. meets the requirements of the present claims with respect to the "consisting essentially of" transitional language.

With respect to Klein et al. (U.S. 6,268,409), applicant argues that the first reaction of Klein et al. is that of amine with epoxy and that while the epoxy used in the initial reaction may also contain cyclic carbonate groups, given that the ring opening of the cyclic carbonate would occur on preformed epoxy backbone, Klein et al. cannot achieve the same structure as in the present invention and no terminal  $\beta$ -hydroxy urethane groups can be formed. However, the present claims are not drawn to a specific structure but rather to a reaction product to form a pigment dispersant. The present claims

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only require reaction product of adduct formed by reaction of alkyl aminoalkyl amine and alkylene carbonate with organic acid followed by reaction with epoxy resin. While Klein et al. do disclose reaction of amine such as dimethylaminopropylamine with cyclic carbonate which is attached to epoxy backbone first, given that Klein et al. disclose reaction of the amine with cyclic carbonate, it is the examiner's position that Klein et al. meets the requirements of the present claims. That is, even though the cyclic carbonate is attached to epoxy backbone, it still reacts with the amine as presently claimed. There is nothing in the present claims that excludes the cyclic carbonate reacting with epoxy first especially given that Klein et al. also further disclose reaction with epoxy resin to form quaternized product as presently claimed.



Callie E. Shosho  
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CS  
8/5/04